Notice of Allowability	Application No.	Applicant(s)	
	09/741,999	MODELSKI ET AL.	
	Examiner	Art Unit	
	Tony Mahmoudi	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed on 30-August-2005*.

2. ☒ The allowed claim(s) is/are *2-4, 6-16 and 18, re-numbered as claims 1-15*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20050916* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

JEFFREY GAFFIN
PATENT EXAMINER
2100

DETAILED ACTION

Remarks

1. In response to the amendment filed on 30-August-2005, claims 1 and 5 are canceled and claims 2-4 and 6 are amended per applicant's request. Therefore, claims 2-4, 6-16 and 18 are pending in the application, of which, claims 2 and 6 are presented in independent form.

2. In view of the examiner's amendment, authorized by the Attorney of Record, claims 2, 5 and 6 are further amended by the examiner (details provided below.)

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. David A. Dagg (Attorney of Record) on 16-September-2005 (see enclosed Interview Summary, paper No. 20050916.)

Claims 2, 5 and 6 are amended by the examiner as follows:

2. (Currently Amended) A method for direct access to bit fields in instruction operands, ~~further~~ comprising:

providing indications of bit fields in source and target operands of a processor executable instruction, each of the indicated bit fields consisting of a plurality of bits in a plurality of bit positions in the source and target operands;

performing the processor executable instruction utilizing the bit fields in the source and target operands in response to the indications of the bit fields~~-~~; and

providing, by performing the processor executable instruction, and in response to the indications of the bit fields, direct manipulation of any bits in any bit field of the source and target operands;

transferring data from an input buffer to a packet task manager;

dispatching the data from the packet task manager to an analysis machine;

classifying the data in the analysis machine; and

modifying and forwarding the data in a packet manipulator;

wherein no instruction depends on a preceding instruction because each instruction in a pipeline is executed for a different thread.

5. (Canceled) ~~(previously presented) An apparatus for directly accessing bit fields in instruction operands, said apparatus comprising:~~

~~at least one memory;~~

~~at least one processor;~~

~~a bus interconnecting said at least one memory and said at least one processor;~~

~~wherein one of said at least one processor retrieves indications of bit fields, said bit fields each consisting of a plurality of bits in a plurality of bit positions within the source and target operands for a processor executable instruction, performs the processor executable instruction utilizing the bit fields in said source and target operands in response to the indications of the bit fields, and provides, by performance of the processor executable instructions, and in response to the indications of the bit fields, direct manipulation of any bits in any bit field of the source and target operands.~~

6. (Currently Amended) An apparatus for directly accessing bit fields in instruction operands, comprising:

at least one memory;

at least one processor;

a bus interconnecting said at least one memory and said at least one processor;

wherein one of said at least one processor retrieves indications of bit fields, said bit fields each consisting of a plurality of bits in a plurality of bit positions within ~~the~~ source and target operands for a processor executable instruction, performs the processor executable instruction utilizing the bit fields in said source and target operands in response to the indications of the bit fields, and provides, by performance of the processor executable instructions, and in response to the indications of the bit fields, direct manipulation of any bits in any bit field of the source and target operands; and

wherein the processor comprises:

an analysis machine having multiple pipelines,

a packet task manager operationally connected to said analysis machine, and

a packet manipulator operationally connected to said analysis machine.

Allowance

4. Claims 2-4, 6-16 and 18 are allowed over the prior art made of record.

5. The following is an examiner's statement of reasons for allowance:

The applicant's amendment, filed on 30-August-2005, overcomes the cited prior art with respect to the newly amended independent claims 2 and 6. Both independent claims have been amended by the applicant to include allowable subject matter(s), as indicated by the examiner in the previous Office Action, dated 04-May-2005.

The examiner's amendment, authorized by the attorney of record on 16-September-2005, overcome the duplicate claim conflict (claim 5) and overcomes minor informalities (claim 2), and 35 U.S.C 112, second paragraph issues, lack of antecedent basis (claim 6.)

The prior art of record, Narad et al (U.S. Patent No. 6,157,955), Hansen et al (U.S. Publication No. 2004/0049663 A1), Christie et al (U.S. Patent No. 6,157,996), Islam et al (U.S. Publication No. 2003/0035430 A1), Stuttard et al (U.S. Publication No. 2002/0174318 A1), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

transferring data from an input buffer to a packet task manager;

dispatching the data from the packet task manager to an analysis machine;

classifying the data in the analysis machine; and

modifying and forwarding the data in a packet manipulator;

wherein no instruction depends on a preceding instruction because each instruction in a pipeline is executed for a different thread, as recited in independent claim 2.

Claims 3 and 4 are allowed over the prior art made of record because they depend from the allowed independent claim 2.

The prior art of record, Narad et al (U.S. Patent No. 6,157,955), Hansen et al (U.S. Publication No. 2004/0049663 A1), Christie et al (U.S. Patent No. 6,157,996), Islam et al (U.S. Publication No. 2003/0035430 A1), Stuttard et al (U.S. Publication No. 2002/0174318 A1), do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

an analysis machine having multiple pipelines;

a packet task manager operationally connected to the analysis machine; and,

a packet manipulator operationally connected to the analysis machine, as recited in independent claim 6.

Claims 7-16 and 18 are allowed over the prior art made of record because they depend from the allowed independent claim 6.

Conclusion

6. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (571) 272-4078. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Gaffin, can be reached at (571) 272-4146.

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September 19, 2005